What is claimed is:

1. A receiver comprising:

an antenna which receives a radio signal including N possible symbols $\{c_1^{(n)}, c_2^{(n)}, \cdots c_{M-1}^{(n)}, c_M^{(n)}\}$ (where n is an integer satisfying the relation $1 < n \leq N$) each symbol represented by M chips (M is an integer equal to or more than 2);

an N correlation units which are provided corresponding to said N possible symbols, respectively, each correlation unit detecting the degree of correlation with the radio signal received by said antenna; and

a symbol determination unit which determines the symbol included in the radio signal received by said antenna based on the degree of correlation detected by said N correlation units,

wherein said N correlation units detect the degree of correlation between the radio signal received by said antenna and the N possible symbols represented by M chips $\{\alpha_0 c_1^{(n)}, \alpha_0 c_2^{(n)}+\alpha_1 c_1^{(n)}, \ldots, \alpha_0 c_{M-1}^{(n)}+\alpha_1 c_{M-2}^{(n)}, \alpha_0 c_M^{(n)}+\alpha_1 c_{M-1}^{(n)}\}$ (where n is an integer satisfying the relation $1 < n \leq N$, and $\alpha 0$ and $\alpha 1$ are non-zero constants).

2. The receiver according to claim 1, wherein a ratio between said $\alpha 0$ and $\alpha 1$ is a ratio between a channel impulse response coefficient of a preceding wave and that of a one-chip delay wave each included in the radio signal received by said antenna.

3. The receiver according to claim 1, further comprising a delay removal unit configured to remove a k-chip delay wave (where k is a constant equal to or more than 2) from the radio signal, the delay removal unit having a plurality of outputs,

wherein the outputs of said delay removal unit are inputted to said N correlation units, respectively.

4. The receiver according to claim 3, wherein said delay removal unit removes said k-chip delay wave from the radio signal based on the preceding wave included in the radio signal received by said antenna.

5. The receiver according to claim 3, wherein said delay removal unit removes said k-chip delay wave from the radio signal based on the one-chip delay wave included in the radio signal received by said antenna.

6. The receiver according to claim 1, further comprising a level comparison unit configured to compare a signal level of the preceding wave with a signal level of the one-chip delay wave each included in the radio signal received by said antenna,

wherein said delay removal unit removes the k-chip delay wave by using the preceding wave or the one-chip delay wave with larger signal level based on a comparison result of said level comparison unit.

7. The receiver according to claim 1, further comprising:

an amplifier which amplifies the wireless signal received by said antenna;

a frequency converter which converts the output signal of said amplifier to a low-frequency signal; and

an A/D converter which converts the output signal of said frequency converter to a digital signal,

wherein said N correlation units detect the degree of correlation based on the digital signal.

8. The receiver according to claim 1, wherein N correlation units detect the degree of correlation with respect to a wireless signal of CCK (Complementary Code Keying) modulation scheme or M-ary modulation scheme received by said antenna.

9. A receiver comprising:

an antenna which receives a radio signal including N possible symbols $\{c_1^{(n)}, c_2^{(n)}, \cdots c_{M-1}^{(n)}, c_M^{(n)}\}$ (where n is an integer satisfying the relation $1 < n \leq N$) each symbol represented by M chips (M is an integer equal to or more than 2);

an N correlation units which are provided corresponding to said N possible symbols, respectively, each correlation unit detecting the degree of correlation with the radio signal received by said antenna; and

a symbol determination unit which determines the symbol included in the radio signal received by said antenna, based on the degree of correlation detected by said N correlation units,

wherein said N correlation units detect the degree of correlation between the radio signal received by said antenna and N possible symbols

$$\alpha_0 c_1^{(n)},$$

$$\alpha_0 c_2^{(n)} + \alpha_1 c_1^{(n)},$$

$$\alpha_0 c_3^{(n)} + \alpha_1 c_2^{(n)} + \alpha_2 c_1^{(n)},$$

$$\vdots$$

$$\alpha_0 c_{M-1}^{(n)} + \alpha_1 c_{M-2}^{(n)} + \alpha_2 c_{M-3}^{(n)} +,\cdots,+ \alpha_{M-2} c_1^{(n)},$$

$$\alpha_0 c_M^{(n)} + \alpha_1 c_{M-1}^{(n)} + \alpha_2 c_{M-2}^{(n)} +,\cdots,+ \alpha_{M-2} c_2^{(n)} + \alpha_{M-1} c_1^{(n)}.$$

each symbol represented by M chips (where n is an integer satisfying the relation $1 < n \leq N$, and $\alpha 0$ and $\alpha 1$ are non-zero constants, $\alpha_2, \cdots, \alpha_{M-1}$ are constants).

10. The receiver according to claim 9, wherein a ratio between said $\alpha 0$ and $\alpha 1$ is a ratio between a channel impulse response coefficient of a preceding wave and that of a one-chip delay wave each included in the radio signal received by said antenna.

11. The receiver according to claim 9, comprising a delay removal unit configured to remove a k-chip delay wave (where

k is a constant equal to or more than 2),

wherein the outputs of said delay removal unit are inputted to said N correlation units, respectively.

12. The receiver according to claim 11, wherein said delay removal unit removes said k-chip delay wave based on the preceding wave included in the radio signal received by said antenna.

13. The receiver according to claim 11, wherein said delay removal unit removes said k-chip delay wave based on the one-chip delay wave included in the radio signal received by said antenna.

14. The receiver according to claim 11, further comprising a level comparison unit configured to compare a signal level of the preceding wave with a signal level of the one-chip delay wave each included in the radio signal received by said antenna,

wherein said delay removal unit removes the k-chip delay wave by using the preceding wave or the one-chip delay wave with larger signal level based on a comparison result of said level comparison unit.

15. The receiver according to claim 9, further comprising:

an amplifier which amplifies the wireless signal received by said antenna;

a frequency converter which converts the output signal of said amplifier to a low-frequency signal; and

an A/D converter which converts the output signal of said frequency converter to a digital signal,

wherein said N correlation units detect the degree of correlation based on the digital signal.

16. The receiver according to claim 9, wherein N correlation units detect the degree of correlation with

respect to a wireless signal of CCK (Complementary Code Keying) modulation scheme or M-ary modulation scheme received by said antenna.

17. A wireless LAN apparatus, comprising:

an antenna which receives a radio signal including N possible symbols $\{c_1^{(n)}, c_2^{(n)}, \cdots c_{M-1}^{(n)}, c_M^{(n)}\}$ (where n is an integer satisfying the relation $1 < n \leq N$) each symbol represented by M chips (M is an integer equal to or more than 2);

an N correlation units which are provided corresponding to said N possible symbols, respectively, each correlation unit detecting the degree of correlation with the radio signal received by said antenna;

a symbol determination unit which determines the symbol included in the radio signal received by said antenna, based on the degree of correlation detected by said N correlation units; and

a data processing unit configured to perform decoding based on the symbol determined by said symbol determination unit,

wherein said N correlation units detect the degree of correlation between the radio signal received by said antenna and the N possible symbols represented by M chips $\{\alpha_0 c_1^{(n)}, \alpha_0 c_2^{(n)}+\alpha_1 c_1^{(n)}, \ldots, \alpha_0 c_{M-1}^{(n)}+\alpha_1 c_{M-2}^{(n)}, \alpha_0 c_M^{(n)}+\alpha_1 c_{M-1}^{(n)}\}$ (where n is an integer satisfying the relation $1 < n \leq N$, and $\alpha 0$ and $\alpha 1$ are non-zero constants).

18. The wireless LAN apparatus according to claim 17, wherein a ratio between said $\alpha 0$ and $\alpha 1$ is a ratio between a channel impulse response coefficient of a preceding wave and that of a one-chip delay wave each included in the radio signal received by said antenna.

19. The wireless LAN apparatus according to claim 17, comprising a delay removal unit configured to remove a k-

chip delay wave (where k is a constant equal to or more than 2),

wherein the outputs of said delay removal unit are inputted to said N correlation units, respectively.

20. A receiving method, comprising:

receiving a radio signal including N possible symbols $\{c_1^{(n)}, c_2^{(n)}, \cdots c_{M-1}^{(n)}, c_M^{(n)}\}$ (where n is an integer satisfying the relation $1 < n \leq N$) each symbol represented by M chips (M is an integer equal to or more than 2) by an antenna;

detecting the degree of correlation between the radio signal received by said antenna and the N possible symbols represented by M chips $\{\alpha_0 c_1^{(n)}, \alpha_0 c_2^{(n)}+\alpha_1 c_1^{(n)}, \ldots, \alpha_0 c_{M-1}^{(n)}+\alpha_1 c_{M-2}^{(n)}, \alpha_0 c_M^{(n)}+\alpha_1 c_{M-1}^{(n)}\}$ (where n is an integer satisfying the relation $1 < n \leq N$, and $\alpha 0$ and $\alpha 1$ are non-zero constants); and

determining the symbol included in the radio signal received by said antenna.

21. A apparatus, comprising:

an N correlation units which are provided corresponding to said N possible symbols $\{c_1^{(n)}, c_2^{(n)}, \cdots c_{M-1}^{(n)}, c_M^{(n)}\}$ (where n is an integer satisfying the relation $1 < n \leq N$) each symbol represented by M chips (M is an integer equal to or more than 2), respectively, each correlation unit detecting the degree of correlation with a radio signal including N possible symbols; and

a symbol determination unit which determines the symbol included in the radio signal based on the degree of correlation detected by said N correlation units,

wherein said N correlation units detect the degree of correlation between the radio signal and the N possible symbols represented by M chips $\{\alpha_0 c_1^{(n)}, \alpha_0 c_2^{(n)}+\alpha_1 c_1^{(n)}, \ldots, \alpha_0 c_{M-1}^{(n)}+\alpha_1 c_{M-2}^{(n)}, \alpha_0 c_M^{(n)}+\alpha_1 c_{M-1}^{(n)}\}$ (where n is an integer satisfying the relation $1 < n \leq N$, and $\alpha 0$ and $\alpha 1$ are non-zero constants).